



## EDUCATION

### **The Effects of Bilingualism on Children with Autism Spectrum Disorders**

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Students with autism spectrum disorders (ASD) from bilingual families often are advised to only speak one language (e.g., English) and refrain from speaking their native language. To gain a better understanding of whether or not this information is accurate, a literature review was conducted. Using EBSCOhost, I examined the Academic Search Premier Database with the following attributes: peer-reviewed journals, dated between January 2008 and October 2014, using the keywords autism AND bilingual. Three articles were identified (i.e., Hambly & Fombonne, “The Impact of Bilingual Environments on Language Development in Children with Autism Spectrum Disorders,” 2012; Petersen, Marinova-Todd, & Mirenda, “Brief Report: An Exploratory Study of Lexical Skills in Bilingual Children with Autism Spectrum Disorder,” 2012; and Yu, “Issues in Bilingualism and Heritage Language Maintenance: Perspectives of Minority-Language Mothers of Children with Autism Spectrum Disorders,” 2013).

Two of the reviewed studies from 2012 hypothesized that both monolingual and bilingual children will have similar-sized vocabulary abilities. The first study (Hambly & Fombonne, 2012) divided its 75 participants into two groups based on language exposure (monolingual vs. bilingual). The bilingual group was further divided into two more groups depending on whether or not the second language was introduced before or after 12 months of age. Interviews, a family background questionnaire, and a measure of total conceptual vocabulary were a few of the instruments used.

The second study (Peterson et al., 2012) conducted a total of 934 hours of speech language and behavior therapy, and administered a number of language tests. The Peabody Picture Vocabulary Test-III (PPVT-III) measured single word receptive vocabulary skills in English; however, for this study it also was administered in Mandarin Chinese. The Preschool Language Scale (PLS-3) assessed language and comprehension skills in infants and young children, and two sub scores, auditory and expressive communication, were calculated for the study. The Mullen Scales of Early Learning (MSEL) measured cognitive function in infants and children, and nonverbal IQ were estimated using the visual reception and fine motor scales from the MSEL. Finally, the Communicative Development Inventories (CDIs), administered in both English and Chinese, were used as additional language measures.

The third study (Yu, 2013) used researcher-developed interviews to gain a deeper insight of each family’s language practices, constraints they faced, and the impact on their day-to-day lives. Ten different families of children with ASD participated in three 60- to 90-minute interviews. The children’s ages ranged from 3 to 8 years, with 9 males and 1 female, and all ten families spoke both Mandarin Chinese and English. These families believed teaching their children more than one language would hinder their learning by making it more challenging.

In summary, results from these three studies showed there are no additional delays and negative impacts on language development when children with ASD are taught a second language. It is imperative that more research is conducted on this topic so speech-language pathologists, pediatricians, and other health

officials can make treatment recommendations based on scientific evidence and help communities overcome misconceptions about bilingualism and ASD. To expand on the knowledge gained from these studies, I plan to conduct a qualitative study of a few bilingual families using pre- and posttests to assess whether or not learning two languages negatively impacts communication skills (receptive and expressive).

*Research advisor Matthew T. Brodhead writes, “Families of children with autism are often faced with a variety of treatment recommendations. However, they often do not have the resources to adequately evaluate them. Monerah’s efforts to synthesize and disseminate research serve as an example of a larger movement to inform the public on best practices for autism treatment.”*